REMARKS

This application has been carefully reviewed in light of the above office action. Reconsideration is respectfully requested in view of the following:

Interview Summary

On September 13, the undersigned spoke with Examiners Eleni Shiferaw and Chris La Forgia regarding a related application and briefly spoke about this application. The undersigned appreciates the courtesies extended by Ms. Shiferaw and Mr. La Forgia during that interview, and invite the Examiners to feel free to call on the undersigned if any issues arise upon review of this response.

During that interview, the Jandel reference was again discussed in the context of 10/037,498. It was concluded that the discussions regarding Jandel were potentially applicable to this application as well.

The Rejection under 35 U.S.C. §112

Claims 29, was rejected based on 35 U.S.C. §112. This claim was previously amended, but the undersigned failed to note that the claim should have been made dependent upon claim 28 rather than 26. The correction to the dependency is believed to render the claim definite and in compliance with the above statute. Reconsideration is respectfully requested.

The Rejections under 35 U.S.C. §101

Claims 12, 21, 62, 82, 97, 106 and 112 were rejected under 35 U.S.C. §101. Applicants believe that these claims are statutory as amended and as originally presented. Responsive to this rejection, however, these claims have been to read verbatim as the Examiner suggests, as best understood by the undersigned. Reconsideration and allowance are respectfully requested.

The Jandel Reference

The following remarks are in official response to the Office Action dated July 25, 2005.

All claim rejections are again based at least in part on the Jandel reference. The Examiner asserts that "Jandel teaches encrypting portions of image data according to multiple encryption method ... When the encrypted portions are decrypted, they have the same resolution but different quality. Jandel's encrypted image portions are not different data they are the same image but different quality." Applicant disagrees and submits the following as the understanding of Jandel obtained by study of this reference and consultation with one of the inventors as well as two patent attorneys representing Applicants.

Jandel's invention relates to a system for providing successively higher quality images for subscriptive distribution, while avoiding the large memory requirements of storing multiple copies of the same image having different quality. Jandel overcomes the memory requirements by providing a low quality base image data, and complementary image data that when sequentially, and conjunctively combined with the base image data and preceding complementary image data generates a higher quality image.

Note the following passages of Jandel addressing the problem and Jandel's advantages starting at page 2 which states in part:

- *"The problems ... are that at least two different versions of the same image need to be stored and that both versions must also be transmitted over the network in case of remote access in the case a customer first wants to see the free low resolution image before paying for the full resolution version."*

- *"This is a significant disadvantage if the reduced version image contains a large fraction of the image information."*

And on page 3 referring to his invention:

- *"The storage space required for storing the first and second section together is essentially the same as the storage space required for storing the unencrypted full quality image."*

And on page 4, again touting his invention:

- *"Transmission times become much lower if the information content of the first, low resolution, image data can be reused when transmitting the higher resolution image data."*

Jandel's base image is a recognizable, visually coherent, but low quality image. The quality of the base image may be improved by subscribing to or purchasing complementary image data. Successively higher quality requires the conjunctive, sequential combination of the base image with one or more complementary image data portions.

Now consider the following <u>direct quotations</u> from Jandel (with emphasis added):

Jandel, in the several paragraphs starting at page 4 last paragraph, states the following:

- *"the image data file consists of a number of <u>different</u> independently decodable coding sections 101, 103 and 105. In the file structure shown in Fig. 1, the section 101, which is a low resolution version of a high resolution image, is coded without encryption ... "*

- *"The section 103, which comprises data, which <u>combined</u> with the data of section 101, result in a medium resolution image, is encrypted by a first encryption method ... "*

- *"The section 105, which comprises data, which when <u>combined</u> with the data of sections 101 and 103 results in a full resolution image, is encrypted using a second encryption method ..."*

- *"Decoding of the section 101 will result in a low resolution image version 107. Decryption 109 and decoding to the section 103 will, combined with the image data from the section 101 result in a medium resolution image 111. Decryption 113 and decoding of the section 105 will, combined with the image data from the section 101 and 103 result in a full resolution image 115."*

In addition to the above, note that Fig. 1 of Jandel shows the "Image File" (unnumbered) as consisting of sections 101, 103 and 105. Also note that only section 101 is required to get a "low quality image". Also note that image 107 <u>and</u> the output of 109 are both required to get a "medium quality image" 111, <u>and</u> note that image 111 plus image 113 all three are required to get a "high quality image" 115.

Jandel excludes image data from the base image to provide a base image that is either lower in resolution, or is incomplete in some way.

Jandel states at the top of page 4:

- *"A reduced quality image can be produced according to several different main schemes, such as*

  Reduced resolution

  Reduced accuracy of the transform coefficients

  Exclusion of predefined regions of interest (ROI)."

Consideration of the discussion above result in the following conclusions:

1.   Jandel uses the terms "resolution" and "quality" loosely and often synonymously and interchangably. (e.g., the text refers to image 111 as a "medium resolution image", and the drawing calls it a "medium quality image".) Apparently, however, a reduced resolution image is one embodiment of what Jandel refers to as reduced quality.

2.   Jandel clearly does use reduced resolution in at least one embodiment.

3.   Each of the three mechanisms listed by Jandel as producing a reduced quality image involves modification of data in a manner that reduces information in any file that stores or transports the data.

4.   Jandel in fact <u>encrypts different information</u> (i.e., the data in each portion is not duplicated). Rather the image data in each portion is complementary (builds one on the other), sequential (must be combined in a specific order to the base image), and conjunctive (higher resolution image data portions must be preceded by the decryption and combining of lower resolution data portions to the base image data). The image data in encrypted section 103 is different than the image data of open section 101, and both of the foregoing are different from the image data in encrypted section 105. - Otherwise, the text would not state (to paraphrase) that image 111 requires image 107 plus the decrypted content of encrypted section 103; and, the text would not state that image 115 requires image 107 plus image 111 plus the decrypted content of encrypted section 105. Thus, the image data in 103 is complementary to that of 101 - <u>not identical</u>. Similarly, the image data in 105 is complementary to that of 103 and 101 - <u>not identical to either</u>.

To paraphrase and shorthand:

- 111 requires 101 + decrypted 103; and

- 115 requires 107 + 111 + decrypted 105.

5.   Referring to Jandel's statement of the problem, he fails to resolve the problem if sections 101, 103 and 105 are the same image. Jandel's system only makes sense in the context of the stated problem if the combined storage of all three sections of the image results in significant storage savings. Further, Jandel explicitly states that the data from the lower resolution images is reused, in a conjunctive and sequential manner, for the higher resolution images.

6.   Jandel states that the storage space for the first and second sections (presumably sections 101 and encrypted 103) is approximately the same as the full resolution image (in this context, Jandel is apparently only referring to a process involving two segments, but the statement is logically extended to three).

7.   The Examiner's assertion that when the encrypted portions are decrypted they have the same resolution but different quality is a contradiction in one of Jandel's embodiments, since Jandel sometimes uses the terms somewhat interchangeably. In the embodiment depicted in Fig. 1, the assertion is clearly erroneous since Jandel achieves the lower quality by use of lower resolution. While Applicants' prior arguments used the term "resolution" too loosely (as does Jandel), the same arguments are applicable if one substitutes "quality". From the above, it cannot be disputed that Jandel's encrypted portions encrypt different data. Thus, all claims are believed to clearly distinguish over Jandel.

Claim Amendments

In view of the brief telephone interview, Applicants have amended the claims to assure that it is clear that multiple encryption of the same data is carried out. Other claim amendments discussed in the context of the related application are believed to be inapplicable to this rejection.

The Examiner's remarks on page 3 in bold suggest that a duplicate of an "image" having different quality would contain the same data in Jandel. The above analysis of Jandel is believed to clearly establish that Jandel in fact has different data in each of sections 101, 103 and 105 (for example), and in fact the data are used in a cumulative

manner to create images of varying quality. The present claim amendments, therefore, are intended to assure that the claims are interpreted as calling for a duplicate of the data. This clearly distinguishes over Jandel.

The Rejections under 35 U.S.C. §102

Claims 54, 56, 58, 60-63, 65-69, 72-73, 76-77, 81-84, 86-87, 90, 94-99, 102-108 and 110-112 were rejected as anticipated by the Jandel reference of record. The Examiner's attention is directed to the above analysis of Jandel in support for the following remarks:

Regarding claims 54, 56, 58, 60-63, 65-69, 107-108 and 110-112 each of the independent claims call for duplicate SI data encrypted using first and second encryption systems. There is no disclosure or suggestion of duplicate data being encrypted using multiple encryption systems in Jandel - different image related data are encrypted in each of sections 103 and 105. Further, there is no discussion of digital television System Information at all in Jandel. Claims 54, 63 and 67 are amended to make explicit that the SI information is digital television SI information (already clearly implicit in the claims). In Jandel, sections 103 and 105 contain different data representing image information. Reconsideration and allowance are respectfully requested.

Regarding claims 72-73, 76-77, and 81-84, each of the independent claims call for duplicate elementary stream data encrypted using first and second encryption systems. There is no disclosure or suggestion of duplicate data being encrypted using multiple encryption systems in Jandel - different image related data are encrypted in each of sections 103 and 105. Further, there is no discussion of digital television elementary streams at all in Jandel. As noted above, Jandel, sections 103 and 105 contain different data representing image information. Reconsideration and allowance are respectfully requested.

Regarding claims 86-87, 90, 94-99 and 102-106 each of the independent claims call

for duplicate data representing video portions of a digital television signal to be encrypted using first and second encryption systems. There is again no disclosure or suggestion of duplicate data being encrypted using multiple encryption systems in Jandel - different image related data are encrypted in each of sections 103 and 105. Further, there is no discussion of digital television elementary streams at all in Jandel. Again, as noted above, Jandel, sections 103 and 105 contain different data representing image information. Reconsideration and allowance are respectfully requested.

The Rejections under 35 U.S.C. §103

Claims 1-2, 5, 8-14, 16-23, 25-26, 28-37, 40, 42-48, 50-53, 57, 59, 74, 79, 80, 85, 93, 101 and 109 were rejected under 35 U.S.C. §103 as obvious over Jandel and Guralnick of record. The Jandel reference is used as discussed above. The Guralnick reference is used for a teaching of encryption of an audio portion of a television signal.

The above remarks regarding Jandel's shortcomings are applicable to each of the rejections under 35 U.S.C. §103. Each of the independent claims calls for duplicate data to be multiple encrypted (to paraphrase without intent of imposing limitations). There is no teaching or suggestion in either Jandel or Guralnick of this claim feature.

While the Guralnick reference appears to disclose analog scrambling of audio data, neither Guralnick nor Jandel nor any of the other art of record is believed to teach or in any way suggest multiple selective encryption of duplicate content as disclosed and claimed by Applicant. Accordingly, claims 1-2, 5, 8-14, 16-23, 25-26, 28-37, 40, 42-48, 50-53, 57, 59, 74, 79, 80, 85, 93, 101 and 109 are believed clearly allowable over the cited art.

Claims 4, 6, 7, 41 and 49 were rejected under 35 U.S.C. §103 as obvious over Jandel and Guralnick and Yasukawa of record. The addition of Yasukawa is intended to show use of a service channel identifier. However, the combined teachings still fall short. As noted above, each of the independent claims calls for duplicate data to be multiple encrypted (to paraphrase without intent of imposing limitations). There is no teaching or suggestion of these claim features in either Jandel or Guralnick or Yasukawa or any of the other art of record. Accordingly, claims 4, 6, 7, 41 and 49 are believed clearly allowable

over the cited art.

Claims 89 and 91-92 were rejected based on the combination of Jandel and Yasukawa. The above remarks are equally applicable since neither Jandel nor Yasukawa provide the required teaching. Claims 89 and 91-92 are believed clearly allowable.

Claims 70-71 were rejected based upon Jandel in combination with AAPA. Again, the above remarks are applicable since Jandel fails to provide the required teaching of multiple selective encryption as claimed. Claims 70-71 are thus believed clearly allowable.

Claims 3, 15, 24, 27, 75, 78, 88 and 100 were rejected based upon Jandel, Guralnick, and Alattar of record. Again, the above remarks are applicable since neither Jandel nor Guralnick nor Alattar provide the required teaching of multiple encryption of duplicate data as claimed. Claims 3, 15, 24, 27, 75, 78, 88 and 100 are thus believed clearly allowable.

Claims 75, 78, 88 and 100 appear to have been additionally rejected based on the combination of Jandel and Alattar. Again, the above remarks are applicable since neither Jandel nor Alattar provide the required teaching of multiple encryption of duplicate data as claimed. Claims 75, 78, 88 and 100 are thus believed clearly allowable.

In view of the above, all claims are believed to be in condition for allowance. The Jandel reference fails to teach that which it is alleged to teach, thereby producing fatal flaws in the rejections. The claims have been amended to provide improved clarity in light of telephone discussions with Examiners Shiferaw and LaForgia. Reconsideration and allowance of all claims are respectfully requested.

Concluding Remarks

In view of the above amendments and comments, it is believed clear that all claims are now in condition for allowance. The undersigned additionally notes that many other

distinctions exist between the cited references and the invention as claimed. However, in view of the clear distinctions pointed out above, further discussion is believed to be unnecessary at this time. Failure to address each point raised in the Office Action should accordingly not be viewed as accession to the Examiner's position.

No amendment made herein was related to the statutory requirements of patentability unless expressly stated herein. No amendment made was for the purpose of narrowing the scope of any claim unless an argument has been made herein that such amendment has been made to distinguish over a particular reference or combination of references.

All claims are believed to be in condition for allowance and such is respectfully requested at an early date. Entry of all amendments is believed appropriate in view of filing of an RCE and in order to place the claims in better condition for appeal, if required. If further matters remain to be resolved, the undersigned respectfully requests the courtesy of a telephone call. The undersigned can be reached at the telephone number below.

Respectfully submitted,

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